What is claimed is:

1. A non-fiber reinforced polyolefin work piece having a thermoset coating adhered thereto made by a process comprising the steps of:

a. forming a polyolefin work piece in a closed mold;

b. injecting a thermoset coating composition capable of free radical initiation into said closed mold such that said coating comes in contact with at least a portion of a surface of said work piece; and

c. opening said mold and removing said work piece after said coating composition has at least partially cured;

wherein said polyolefin is selected from the group consisting of polyolefin homopolymers, polyolefin copolymers, functionalized polyolefins, and blends thereof.

2. A work piece according to claim 1, wherein the polyolefin comprises an ethylene-propylene copolymer.

3. A work piece according to claim 1, wherein the polyolefin comprises a copolymer of an olefin and an ethylenically-unsaturated monomer that is polar in nature.

4. A work piece according to claim 3, wherein the polyolefin comprises a copolymer of an olefin and a monomer selected from the group consisting of vinyl esters of carboxylic acids, vinyl halides, and unsaturated carboxylic acids or esters thereof.

5. A work piece according to claim 3, wherein the polyolefin comprises a copolymer of an olefin and a monomer selected from the group consisting of acrylic acid, methacrylic acid, carbon monoxide, methyl acrylate, butyl acrylate, methyl hydrogen maleate and vinyl acetate.

6. A work piece according to claim 1, wherein the polyolefin comprises a functionalized polymer having an olefinic backbone and one or more monomers grafted to said backbone.

7. A work piece according to claim 6, wherein said one or more monomers are selected from the group consisting of sulfur-, halogen-, oxygen- and/or nitrogen-containing ethylenically unsaturated, aliphatic or aromatic monomers having from 2 to about 50 carbon atoms.

8. A work piece according to claim 7, wherein said one or more monomers are selected from the group consisting of methyl methacrylate; ethyl methacrylate; butyl methacrylate; octyl methacylate; methacrylic acid; methyl acrylate; ethyl acrylate; butyl acrylate; octyl acylate; 2-hydroxyethyl acrylate; glycidyl acrylate; acrylic acid; maleic anhydride; vinyl acetate; acrylonitrile; acrylamide; vinyl chloride; vinyl fluoride; vinylidenedifluoride; tetrafluoroethylene; styrene; alpha-methyl styrene; trimethoxyvinylsilane; triethoxyvinylsilane; N-vinylimidazole; 1-vinyl-2-pyrrolidinone; C-vinylimidazole; N-allylimidazole; 1-vinylpyrrolidinone; 2-vinylpyridine; 4-vinylpyridine; N-methyl-N-vinylacetamide; diallyl formamide; N-methyl-N-allyl formamide; N-ethyl-N-allyl formamide; N-cyclohexyl-N-allyl formamide; 4-methyl-5-vinyl thiazole; N-allyl diisooctyl phenothiazine; 2-methyl-1-vinylimidazole; 3-methyl-1-vinylpyrazole; N-vinylpurine; N-vinylpiperazines; N-vinylsuccinimide vinylpiperidines; vinylmorpholines; and aminopropylimidazole.

9. A work piece according to claim 1, wherein the polyolefin comprises a blend of one or more polyolefin homopolymers, polyolefin copolymers, and functionalized polyolefins.

10. A work piece according to claim 9, wherein the polyolefin comprises a blend of a polyolefin homopolymer, a polyolefin copolymer, or a functionalized polyolefin with an impact modifying polymer.

11. A work piece according to claim 9, wherein the impact modifying polymer is a halogenated polymer.

12. A polyolefin work piece substantially free of fiber reinforcement having a thermoset coating adhered thereto made by a process comprising the steps of:

a. introducing a polyolefin material into a closed mold to form a work piece;

b. introducing into said closed mold a thermoset coating composition, said composition including a component capable of generating free radicals, said composition contacting at least a portion of a surface of said work piece, a surface temperature of said workpiece being at or above the temperature at which free radicals are generated in said coating composition; and

c. opening said mold and removing said work piece after said coating composition has at least partially cured;

wherein said polyolefin is selected from the group consisting of polyolefin homopolymers, polyolefin copolymers, functionalized polyolefins, and blends thereof.

13. A work piece according to claim 12, wherein the work piece comprises less than 5% reinforcing fiber.

14. A work piece according to claim 13, wherein the work piece is free of reinforcing fiber.

15. A work piece consisting essentially of polyolefin having a thermoset coating adhered thereto made by a process comprising the steps of:

a. introducing a polyolefin material heated to a temperature at or above its melting point into a closed mold to form a work piece;

b. introducing into said closed mold a thermoset coating composition including a component capable of generating free radicals to contact at least a portion of a surface of said work piece, the temperature of said surface being at or above the temperature at which free radicals are generated in said coating composition; and

c. opening said mold and removing said work piece after said coating composition has at least partially cured;

wherein said polyolefin material is selected from the group consisting of polypropylene, polyethylenes, polystyrenes, polybutylenes, substituted polyolefins and mixtures thereof.

16. A molded non-fiber reinforced polyolefin workpiece including a thermoset coating bonded thereto, said coating comprising a composition including a free radical generating component.

17. A molded polyolefin work piece according to Claim 16 wherein said component capable of generating free radicals is a peroxide initiator.

18. A molded polyolefin work piece according to Claim 16, wherein said thermoset coating comprises a saturated aliphatic polyester urethane intermediate, a saturated (cyclo) aliphatic (meth) acrylate, one or more hydroxy alkyl (meth) acrylates, a polyacrylate ester of an alkylene polyol, one or more vinyl substituted aromatics, and an initiator capable of generating free radicals in said coating composition.

19. A molded polyolefin work piece according to Claim 16 wherein said component capable of generating free radicals is an azo-initiator.

20. A thermoplastic work piece substantially free of fiber reinforcement having a thermoset coating adhered thereto made by a process comprising the steps of:

a. forming a thermoplastic work piece in a closed mold;

b. introducing into said closed mold a thermoset coating composition comprising a saturated aliphatic polyester urethane intermediate, a saturated (cyclo) aliphatic (meth) acrylate, one or more hydroxy alkyl (meth) acrylates, a polyacrylate ester of an alkylene polyol, one or more vinyl substituted aromatics, and an initiator capable of generating free radicals in said coating composition; and

c. opening said mold and removing said work piece after said coating composition has at least partially cured.

21. A work piece according to claim 20, wherein said thermoplastic is selected from the group consisting of polyolefin homopolymers, polyolefin copolymers, grafted polyolefins, and blends thereof.

22. A work piece according to claim 20, wherein said thermoplastic is selected from the group consisting of nylon, polystyrenes, and substituted polyolefins.

23. A work piece according to claim 20, wherein said mold is heated to a temperature of 200-250°F during steps a and b.

24. A work piece according to claim 23, wherein said polyolefin is heated to a temperature of 400-500°F prior to introduction into said mold.

25. A work piece according to claim 20, wherein said thermoset coating composition is injected into said mold at a pressure of 1000-5000 psi.

26. A work piece according to claim 20, wherein said work piece is formed at an internal mold pressure of about 250 bar.